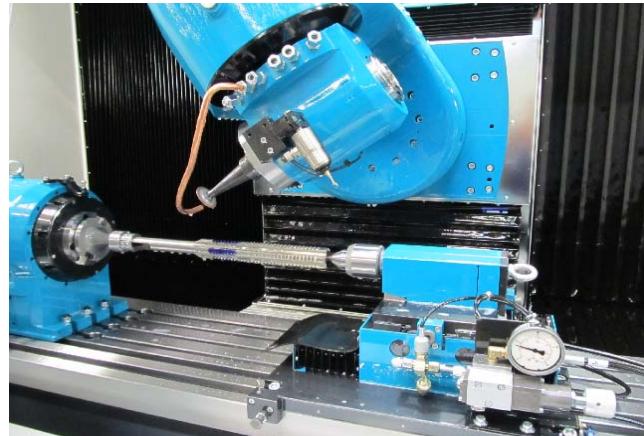


Cylindrical Broach production

A14-210

Broaches are high performance tools which are used in manufacturing process of inner and outer patterns like generation of inner gear profiles. SCHNEEBERGER offers production and resharpening possibilities for broaches. Major geometry attributes of the broach like pitch, diameter, depth of flute etc. can be measured inside the machine using 3D probe. Grinding can be performed based on the entered or on the probed values.

Current example is a round broach with Ø30mm, 760mm profile lenght, 24 spline grooves and 67 teeth in total.



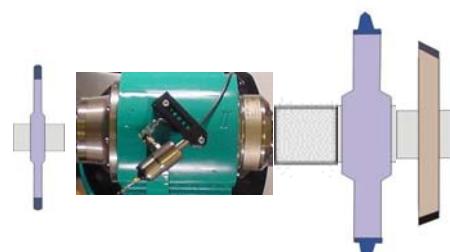
1. Cycletime for Production

Tool specifications round Material HSS	Probe	Flute 1	Profiling	OD
Operations				
Feed [mm/Min]	2000	100	5000	250
Power [kW]		2	4	2
Cutting feed [m/s]		28	30	28
Used wheels				
Grinding time [min]	5	65	240	65
Total cycle time	6h 15min			

The mentioned cycle times are indicative. The material to be ground, different grinding wheels or other coolants can influence the cycle times considerably.

2. Used Grinding Wheels

35 Ø50 14F1 B126
34 Ø150 DXF C120
14 Ø125 1V1 B126



3. Machine and Software Requirements

Machines: 6 axes CNC grinder : CORVUS BBA
Control: Fanuc 31i
Coolant: Synthetic Oil, pressure 6 - 7 bar
Software: Quinto 5

responsible engineer: SIW, 10.09.12

www.schneeberger.ch

J. SCHNEEBERGER Maschinen AG 4914 Roggwil Switzerland
Subsidiaries in: France, Deutschland, Italia, United States, China

TECHNOLOGY
FOR TOOLING